



JSF Program and Interoperability DAU

 **8 June, 2004**



JSF Is a Multi-Service, Global Program



F-35A



**CTOL
(USAF)**

F-35B



**STOVL
(USMC and UK)**

F-35C



**CV
(USN)**





JSF Enables True Joint, Coalition Operations



**Total US/UK JSF Requirement
Is
Approximately 2600 Aircraft**

**Lockheed-Martin
F35
Joint Strike
Fighter**

Current Aircraft

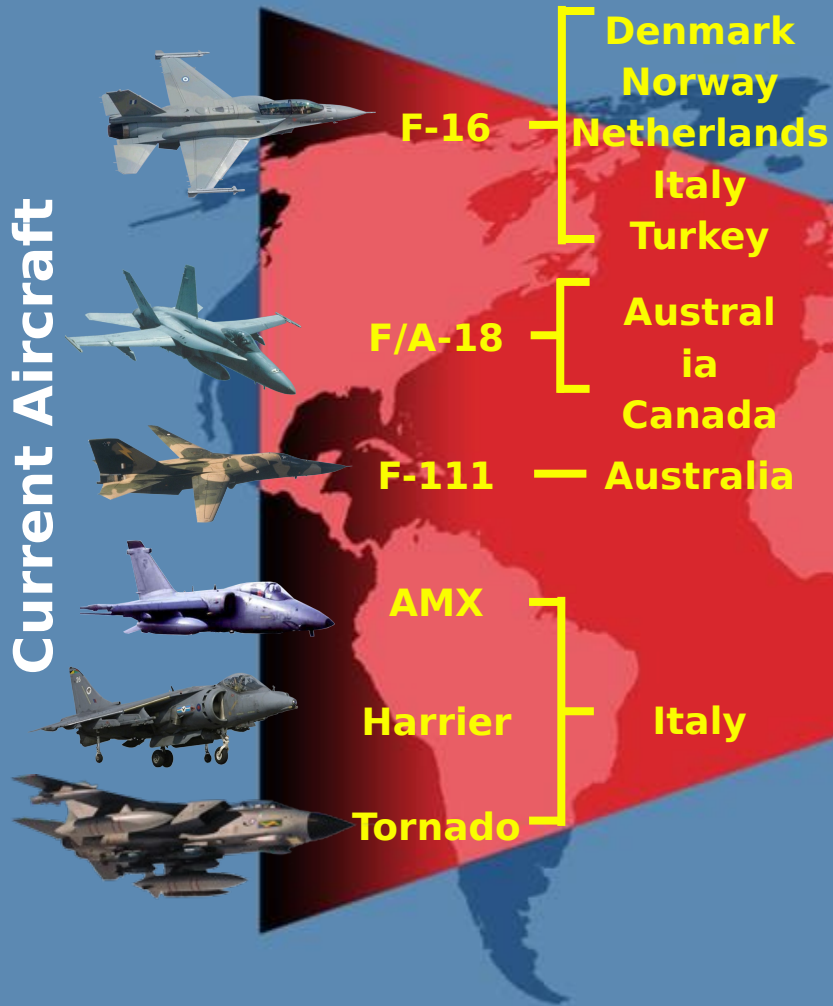




JSF Enables True Joint, Coalition Operations



Current Aircraft



Potential Foreign Military Sales Approximately 1500-3000 Aircraft

Lockheed-Martin F35 Joint Strike Fighter





Future ... with F-35

- **F-35 Creates Truly Global, Highly Effective Fighter Force**
- **Coalition Package Able to Tackle Heavily Defended Targets**
- **Closes Aerospace “Capability Gap”**



**Future
Strike
Package**

F-35

US

UK

Netherlands

Italy

Canada

Denmark

Norway

Turkey

Australia



JSF's Fifth Pillar - Interoperability



Survivability

Supportability

Interoperability

Lethality

Affordability



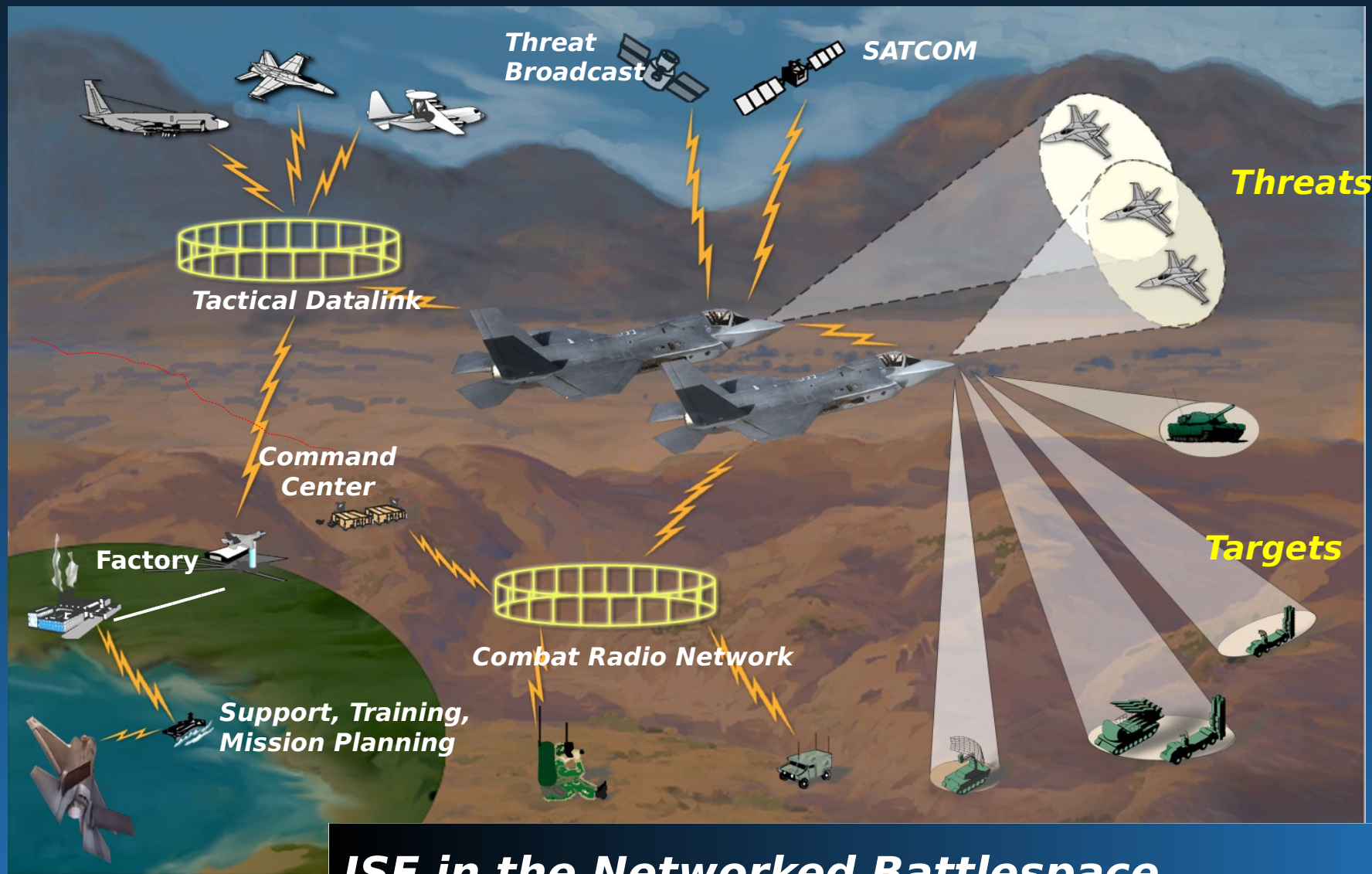
Interoperability - One of Eight JSF KPPs



KPP	USMC	USAF	USN	UK
Radio Frequency	Very Low Observable			
Signature Combat Radius	450 nm USMC Profile	590 nm USAF Profile	600 nm USN Profile	450 nm UK Profile
Sortie Generation	4 Surg / 3 Sust	3 Surg / 2 Sust	3 Surg / 2 Sust	3 Surg / 2 Sust
Logistics Footprint	< 8 C-17 equivalent loads (20 PAA)	< 8 C-17 equivalent loads (24 PAA)	< 46,000 cu ft 243 ST	< 21,000 cu ft 102 ST
Mission Reliability	95%	93%	95%	95%
Interoperability	Meet 100% of Critical, Top-level Information Exchange Requirements			
STOVL Msn Performance Short Take-Off Distance	550' 2 x 1K JDAM, 2 x AIM-120 With Reserve Fuel	N/A	N/A	450' ski-jump 2 x 1K JDAM, 2 x AIM-120 With Reserve Fuel
Maximum Vertical Lift Approach Speed	N/A	N/A	145 knots	
Joint	USMC/UK		US Navy	



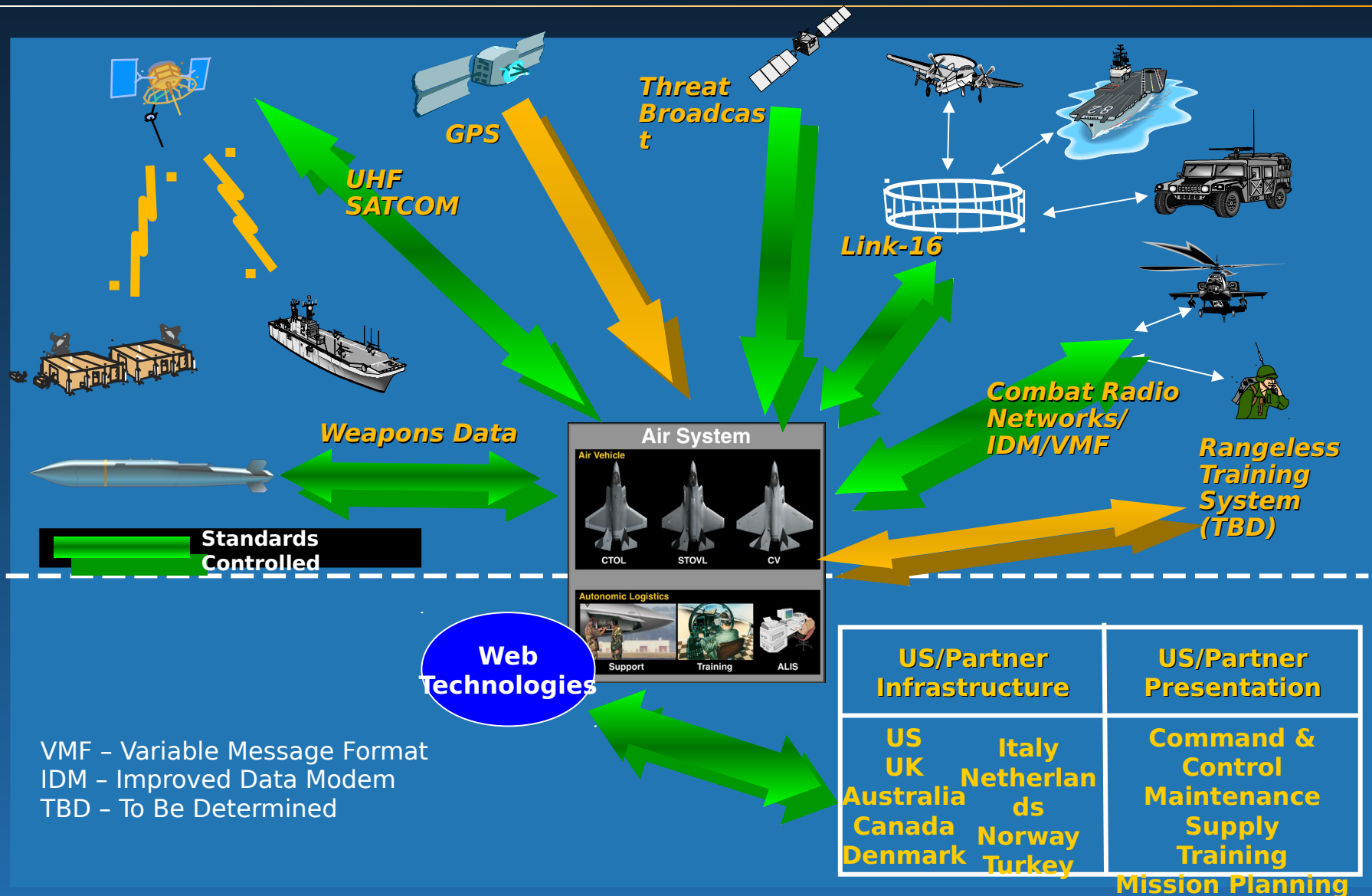
Improved Combat Effectiveness for Joint Commanders



JSF in the Networked Battlespace



JSF Design Approach Addresses Interoperability Complexity

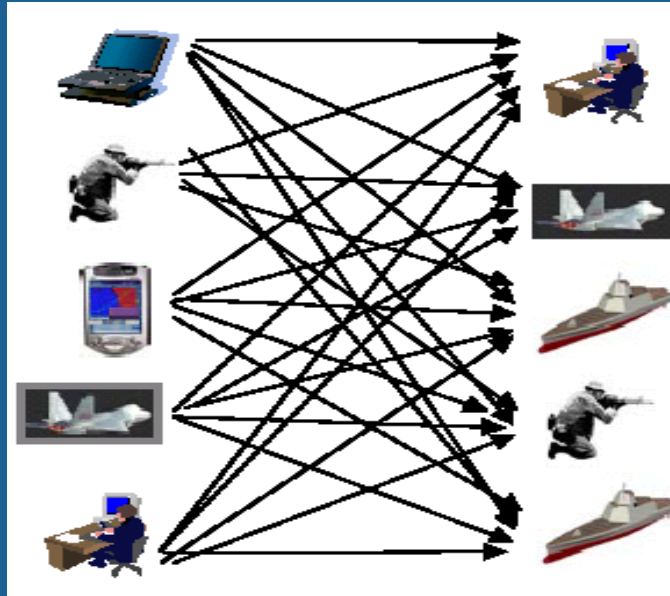




The DoD Net Centric Transformation



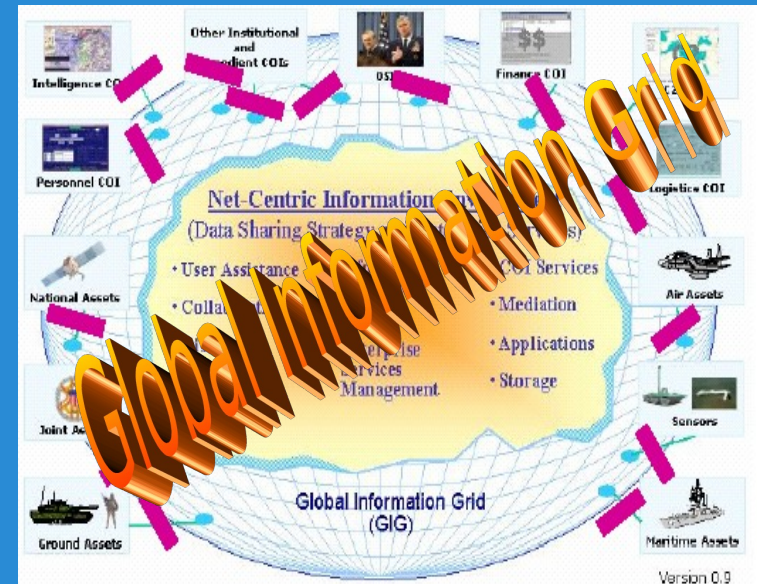
Present Environment



One-to-One Exchanges

- Measured by an Interoperability KPP
- KPP Defined by Information Exchange Requirements

Net-Centric Environment



One-to-Many Exchanges

- Measured by a Net Ready KPP
- KPP Defined by 4 Global Information Grid Attributes

JSF Architecture Designed to Adapt as Requirements



- **Improving US and Coalition Warfighter Combat Effectiveness**
- **Improving Logistics Support**
- **Enabling New Approaches To Strike Operations**

Enabled By

Common and Interoperable Avionics Systems

3000 US Aircraft Built to Same Interoperability Standards

6000 Including International Partners

Robust Strike Fighter Communications Capability

(In-Flight Data Link, Link-16, VMF, SATCOM)

Web Based Logistics Information System



- **Why We are Focusing on Interoperability**
 - *Information Sharing and Collaboration Enhance Mission Effectiveness*
 - *JSF Mission Effectiveness Requires Interoperation with US and Coalition Ground, Sea and Air Forces*
- **The Challenge Ahead**
 - **Delivering What We Promised to the Warfighter**
 - **Coping With Change to External Systems and Architectures**

The background of the slide features a large, white X-35C fighter jet in flight, viewed from a low angle. To the left of the jet, a vertical column of nine international flags is displayed, including the United States, United Kingdom, Italy, Hungary, Denmark, Norway, Australia, Turkey, and Canada. The jet's tail fin is marked with 'X-35C' and '300'. The cockpit canopy shows two pilots. The jet is flying against a blue sky with scattered white clouds.

**"We Judge Ourselves By Our Intentions
But Others Judge Us Mostly By Our Actions"**

Questions

